

Urology Curriculum

PREPARED BY
SCIENTIFIC COUNCIL FOR UROLOGY



Curriculum for Urology

Reviewed and approved by

Members of Urology Scientific Council

Dr. Jihad Alahmad

Dr. Ahmed Abdulrahman

Dr. Mostafa Deeb

Dr. Mohamed Abdulrahman Mekdad



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> Email: info@sboms.org Website: www.sboms.org



Introduction:

This program is our hope that we are eager for succeed in its implementation, although it is an optimistic program, but it is practical and not impossible to achieve. With the cooperation of universities, scientific institutes and health ministries and secretariats, it will be possible to get the best and provide a lot of effort and expenses that is destroyed by sending our students outside our countries.

This guide is designed to detail the study programs of lectures, seminars, meetings and clinical courses given to the Intern, as well as to involve the Interns in obtaining the required information through question and answer, discussions, instilling the spirit of participation and initiative, deepening and improving the ways of thinking to solve the medical problems faced by the specialist in medical surgical sciences. Logical thinking is the basis of education and the foundation of the principle that medical education is lifelong learning does not stop at a certain limit or age. Surgical science does not know stop, the person stopped in place is daily delayed proportionally in comparison with others progress.

Internship Objectives

Graduation of a Urology Practitioner at a level of skills that enables him to practice efficiently and securely and have the knowledge, skills and behaviors required for best practice at a level comparable to international standards.

Enabling graduates from:

- 1. Obtain adequate and basic information for applied and practical surgical sciences.
- 2. Self-follow up of medical education in the field of applied urology.
- 3. Obtain sufficient clinical information to develop the ability to make correct surgical decisions.
- 4. Obtain sufficient surgical skill to perform his work as a specialist in the surgery of urinary tract accurately and safely.
- 5. The ability to make the right decision to qualify him to take responsibility as a specialist.
- 6. Acquire the ethics and laws of the profession and proper professional behavior.
- 7. Knowledge of the fundamentals of scientific applied scientific research and basic sciences and the dissemination of scientific



research.

Entry Requirements

The conditions that must be met for the applicant to obtain a certificate of specialization in Urology:

- 1. The applicant must have license in medicine and surgery from a recognized university.
- 2. To be familiar with Arabic language
- 3. The applicant shall pay tuition fees applicable in the Syrian Board of Medical Specialties.
- 4. To be accepted to study in the specialization in his country.

Internship

The internship should be in practical and scientific centers recognized by the Scientific Council for Urology, and by SBOMS. It shall issue an annual publication of the names of recognized centers.

Internship Duration

The duration of the Internship is five years as a resident intern with graded responsibility.

Internship shall take place within five years according to the following program, instructions issued by the Scientific Council shall be observed:

- 1. Two years in the general surgery, the first year of Internship will cover the general and basic surgical skills with a focus on the treatment of the patient before and after the surgery, as well as the ability to deal with various surgical complications, also include accidents, injuries, first aid as well as:
 - Three months in internal kidney disease.
 - Three months in vascular surgery and gastrointestinal surgery.
 - Three months in the Department of Radiology and Plastic Surgery.



2. Three years in urinary tract surgery.

Internship Requirements

Training requirements in the first and second year

- The intern covers important and basic surgical skills with emphasis on pre and post-surgery treatment, as well as the ability to cope with various surgical complications and also include emergency injuries and accidents.
- 2. He/She is supposed to be familiar with the various minor and major surgeries through his participation and knowledge of follow-up.
- 3. The intern must adhere to the schedule and the morning and night shifts, participate effectively in all academic activities in the department and provide some lectures on the topics of the basics of surgery.
- 4. Be aware of all diseases of basic medical and surgical sciences:
 - Shock
 - Blood coagulation and clotting
 - Acute and chronic infections
 - Immunology
 - Embryology and heredity
 - Nutrition disorders
 - Burns
 - Microbiology and Antibiotics



- pharmacology
- Pathological anatomy
- Genitourinary system trauma
- Urinary tract infections
- Chemotherapy and radiotherapy
- Organ response to surgery and injuries
- Wounds and treatment
- Fluid therapy
- Anesthesia and sedation
- Injuries and recovery
- Evaluation before and after surgery
- Accurate monitoring of the patient
- Care after surgery, convalescence and rehabilitation
- Foundations of conservation and cultivation of tissues and organs
- Foundations of oncology, radiotherapy and chemotherapy
- Surgical infections, antibiotics and sterilization
- Blood gases and electrolytes
- 5. Acquire knowledge in anatomy with a focus on urinary tract
- 6. Acquire knowledge in physiology
- 7. References:

BASIC TEXTS

1. Regional and Applied Anatomy by R.J. Last. (Churchill Livingstone



Pub)

- 2. Atlas Anatomy.
- 3. Gray's Anatomy.
- 4. General Pathology by J. Walter and M. Israel. (Churchill Livingstone)
- 5. Surgical Pathology by Ackermann (Mosbit)
- 6. Principals of Surgery by Schwartz.
- 7. Campbell's Urology, Last Edition.
- 8. Surgical Anatomy of G.U.Tract.
- 9. Histology-Histopathology of G.U.Tract.
- 10. Bacteriology-Antbiotics.
- 11. Pharmacology in Relation to Urology.
- 12. Review of Medical Physiology by W. Ganong (Lange Pub)
- 13. Medical Physiology by A. Guton (W.B. Saunders)
- 14. Clinical Pharmacology by Lawrence.
- 15. Surgical Physiology by Lendingham and C.Mc Kay (Churchill Livingstone Pub)
- 16. The pharmacological basis of therapeutics by Goodman and Gilman (Macmillan Pub)

Requirements for Internship in urinary surgery for three years

The intern must meet the following (mandatory attendance):

- 1. Follow-up diligently with everything related to the patient since his entry until his discharge.
- 2. Active participation in the daily meeting in presenting cases and discussing them.
- 3. Participate actively in the educational morning visits to patients in the departments and documentation of developments and in the event of discharge of the patient write the discharge report in detail.
- 4. Participate in the presentation of lectures during the internship period at least ten lectures in the field of urology.
- 5. Active participation in the papers' seminars.
- 6. Participation in monthly meetings to discuss deaths and complications.
- 7. Participate in the monthly meeting of Surgical Pathology.
- 8. Participation in the monthly meeting of Uro-Radiology.
- 9. Participate in local or regional conferences if possible.
- 10. Follow-up of patients in evening visits with documentation.
- 11. Maintain patient secrets and be careful to behave well in communicating with medical staff colleagues and patient.
- 12. Participation in outpatient clinics and surgeries.



- 13.Documenting all scientific activities on a monthly basis within the scientific and clinical register, signed by the supervisor.
- 14. Adherence to the shifts according to the system followed in the hospital and according to the directives of the Syrian Board of Medical Specialties.

Surgeries required from the intern during the three years of urinary surgery:

1. Surgeries that should be mastered and conducted as a main surgeon:

- Minor Surgeries:

- Varicose veins
- undescended testis
- Hydrocele
- Cystic calculus
- Suprapubic cystostomy to drain urine using catheter
- Prostate biopsy

- Major Surgeries:

- Prostatectomy surgically and with laparoscope.
- Removal of urinary bladder tumors by cystoscope.
- Cystoscopic cystolithectomy.
- Endoscopic urethrotomy for urethral stricture.



2. Surgeries that must be well known:

- Nephrectomy for kidney diseases and cancers
- Partial nephrectomy
- Nephrolithotomy and ureterolithotomy
- Pyeloplasty
- Cystectomy urinary bladder cancers and various types of urinary diversion
- Bladder diverticulum ablation
- Ureteral reimplantation Surgery
- Surgical cystolithectomy
- Bladder fistula surgeries
- Endoscopic and laser surgeries:
 - Treatment of vesicoureteral reflux in children by endoscopic injection and electrocoagulation
- Ureteral reconstruction surgery
- Congenital malformations in children
- Endourology
- Laparoscopy surgery according to availability



Internship supervisors in internship centers

Qualifications of the internship supervisor:

- 1. Be a full-time consultant with full practical, scientific and educational experience for at least 5 years.
- 2. To be completely full-time.

Duties of the internship supervisor:

- 1. Periodic and continuous evaluation of the internship by practical observation and exams.
- 2. Ensuring increased responsibility for the intern according to his qualifications and years of internship.
- 3. Arranging the scientific activities of the intern and documenting them in the log book.
- 4. Creating the appropriate scientific environment for the Intern through inviting the local and international experts, and organizing refresher courses.
- 5. Supervise the programs conduct by Interns and following up their work.
- 6. Submit a scientific and practical log book to the internship committee at least three months from the date of the exam-
- 7. Supervising scientific research and ensuring that it is published in local or international scientific journals.



Instructor qualities:

- 1- The instructor must be a specialist with the highest academic qualifications with experience of not less than 5 years.
- 2- The instructor must be a full-time to work in the hospital while continuing to perform his duties as surgeon.

Instructor commitments:

- 1- Periodic and continuous evaluation of the intern by scientific supervision and exams.
- 2- Ensuring increased responsibility for the intern according to his qualifications and years of internship.
- 3- Arrange the scientific activities of the intern and work to document it in the log book.
- 4- To be accountable to the program supervisor for the implementation of the above.

Exams

1. The first part exam

Admission requirements:

- The applicant has met the requirements for admission to a recognized internship program.
- Have spent at least one year in the program.
- To be evaluated by the program supervisor in a manner that meets the requirements of the Scientific Council of Urology.
- Apply for the exam and pay the fees.
- The intern is subject to all Council regulations related to the exam.

Exam format:

- Written M.C.Q exam. exam paper contain 100 questions in basic sciences and basic surgical skills will take two hours.
- The exam committee will prepare the exam questions with full commitment to the approved curriculum.
- The exam is conducted twice a year.
- The applicant has three opportunities to submit the exam in a sequential manner with an exceptional fourth chance with the approval of the Scientific Council.



The second part exam:

Admission requirements:

- The intern should has passed the first part exam.
- The applicant has completed the five years of internship at centers recognized by the Scientific Council.
- To be assessed by the internship supervisor satisfactorily, provided that this assessment is confidential.
- The student scientific and clinical record (log book) should be in accordance with the above mentioned requirements of the Council and documented by the internship Center.
- The intern must present the private evaluation form signed and documented by the supervisor and the training center showing his competence, skill, professional conduct and ability to enter the final exam.
- Highlights a report on 20 major cases conducted personally or conducted under the supervision of the intern.
- The application form must be submitted on a special form for this purpose and pay the fees.
- The intern is subject to all Council regulations related to the exam.

Exam format:

The exam consists of two oral-written sections



Written exam

Written exam consists of two papers, contain multiple choice questions M.C.Q, and each paper has 75 questions.

Hold the written exam in one day.

The Exams Committee prepares the written exam questions and also nominates the examiners from inside and outside the Scientific Council for Surgery to be approved by the Executive Committee of the Council. The committee supervises the correction of questions or authorizes those who will do so.

The written final exam will be held twice a year at one or more centers announced at the time.

The trainee has the right to take the final written exam for three consecutive times with an exceptional opportunity.

Clinical oral exam

Exam format

- Two long cases are counted as 25 marks
- 4 short cases count 12.5 marks per case
- The cases are the Skills and Capability Test: Objective Structured Clinical Examination (OSCE).



References

Approved sources for the second part exams:

- 1. Campbell's Urology, Last Edition.
- 2. Scientific Foundation of Urology, Last Edition.
 - E: D. I Williams & G A. Chisholm
 - P: Heineman, London
- 3. Operative Urology J.P. Blandy, Last Edition.
- 4. Urinary Diversion, Last Edition.
 - Michael Handy-Ashken.
- 5. Smith and Tanagho's General Urology, Last Edition.
- 6. Urology Surgery Glenn's, Last Edition.
- 7. Urologic Surgery Clinics Saunder, Last Edition.
- 8. European Urology. (Journal)

